IN THE SPECIFICATION.

Page 4, the paragraph beginning at line 29 and continuing to page 5, line 9.

Figure 1 shows a conventional optical transmission system. It includes two terminal stations, namely a transmitter 2 (XMIT) and a receiver 4 (RCVR), connected by a fiber optic link 6. Amplifiers 8 are provided at regular intervals along the optical fiber to re-amplify the signals and so compensate losses due to absorption by the optical fiber. The distance Z_a between two consecutive amplifiers depends on many parameters (signal intensity, absorption by the optical fiber, wavelength separation between the signals, etc.); it is typically from 50 km to 100 km. The transmission system further includes optical regenerators 10 (OREG). The distance Z_r between two successive regenerators also depends on many parameters (Kerr effect, Gordon-Haus jitter, four-wave interaction, etc.) which affect the shape of the pulses and induce an offset of the pulses relative to their nominal bit time. The regenerators are generally disposed at a distance Z_a relative to amplifier 10 and including an amplifier similar to the amplifiers 8. The distance Z_r between two regenerators is equal to $k.Z_a$, where k is an integer generally from 5 to 10 and depending in particular on the bit rate of the signals of the multiplex.

Page 5, line 34 through page 6, line 5.

Figure 2 shows a first embodiment of a regenerator designed to regenerates only one channel. It has at the input a duplexer 12 for separating the channel λk to be regenerated from the other channels λi ($1 \leq i \leq n; i \neq k$) and at the output a duplexer 14 for remultiplexing the channel λk with the other channels. The regenerator unit 16 (REGEN) can be of any type known in the art and advantageously includes a synchronous optical modulator in the case of soliton signals or RZ signals converted into solitons.